gairdner

LES PRIX CANADA GAIRDNER AWARDS

2016 Annual Report

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ABOUT GAIRDNER

History

The Gairdner Foundation was established in 1957 to award annual prizes to individual researchers whose discoveries in biomedical science have had major impact on progress in science and on human health. Annually, seven awards are given: five Canada Gairdner International Awards, the John Dirks Canada Gairdner Global Health Award, for outstanding achievements in Global Health research, and the Canada Gairdner Wightman Award, reserved for a Canadian scientist for exceptional leadership in Canadian medical science. The Awards are highly regarded as one of the world's most prestigious biomedical prizes with many of our laureates (84 in our history) going on to receive the Nobel Prize.

Mission

- To **celebrate excellence** in fundamental research that impacts human health through the Canada Gairdner Awards
- To **convene leaders** from the research, academic, public and private sectors through events
- To **inspire the next generation** of students in the excitement and potential of scientific research in a global context through outreach programs

MESSAGE FROM THE CHAIR

The Gairdner Foundation has continued its path to success with new leadership under Dr. Janet Rossant who has revitalized the team and programs. Gairdner's brand continues to gain international recognition and maintains its reputation as one of the most prestigious biomedical prizes.

This year's choice to recognize five leaders from the CRISPR-Cas gene editing field showcases the thorough, progressive nature of our diligent adjudication committee members. In addition, the recognition of two world-renowned leaders from the HIV/AIDS field was well received by media, the health care community and those who had the opportunity to see our awardees lecture.

Our National Program continues to showcase our Canada Gairdner Award laureates and their impressive research while also promoting our awards nomination process. Through our Student Outreach Program, our winners continue to inspire the next generation of scientists and many of our laureates continue to express this as their most memorable part of the Gairdner experience.

The hard working Gairdner team coordinates the various events and conducts careful stewardship while also displaying their creative abilities to take Gairdner to the next level. The Board recognizes the dedication and leadership of Dr. Janet Rossant as she continues to grow the team and promote internally, capitalizing on the strengths of the staff.

We depend on our Board to assist our management team in maintaining Gairdner's solid reputation for years to come. I am grateful for Board of Directors, a group of leaders with expertise from sectors including financial, governance, law and science. I would also like to extend my sincere gratitude toward the Government of Canada and CIHR for their generous support along with the Government of Ontario and Government of Alberta for their continued support of the Gairdner Foundation.

D. Lorne Tyrrell, OC, AOE, MD/PhD, FRCP, FRSC
Chair, Gairdner Board of Directors

MESSAGE FROM THE PRESIDENT & SCIENTIFIC DIRECTOR

With one year under my belt as President and Scientific Director, I am pleased to report on the incredible work of the Gairdner Foundation staff in 2016.

Our seven laureates were exceptional examples of the power of research to convene and inspire. Our gene editing laureates mixed with those in HIV/AIDS were in high demand for lectures and events throughout the country and represented the Gairdner brand and mission well throughout all of their endeavours.

The Annual Awards Gala Dinner had 550 guests from the research, academic, public and private sectors filling the Royal Ontario Museum. Minister of Health, Jane Philpott shared welcome remarks about the Government of Canada's passion for the Foundation and the importance of our awards, not only within Canada but around the world.

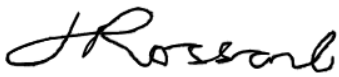
The National and Student Outreach Programs continue to receive positive feedback and in 2016, we expanded the reach of our lectures through live webcasting with archived links on our website to help us continue to inspire the next generation of scientists.

The Gairdner Foundation hosted receptions around the world with various partners including: MIT in Cambridge, the Canadian Embassy in Washington, UC Berkeley in Berkeley, University of North Carolina State in Raleigh, the Canadian Embassy in Paris, the Canadian Embassy in Berlin and the University of Manitoba in Winnipeg. The receptions were particularly enjoyed by our winners as they celebrated with close colleagues and family. It allowed Gairdner to expand our network to new cities and countries while also establishing new relationships that we are growing into sponsorships and new nomination resources. This is an opportunity for Canada to demonstrate its support for science excellence worldwide.

I am very grateful to all of the scientists who generously donate their time to serve on our adjudication committees. I am looking forward to maintaining Gairdner's reputation of a stringent and fair adjudication process through the expansion of our committees. Their tireless commitment to the Canada Gairdner Awards and the care with which the award selections are made lays the ground work for the Foundation's prestigious reputation.

Our successful year is also due to the 15+ universities whose volunteer commitment is unmatched. They set the stage for our faculty lectures at universities across Canada along with our Student Outreach Program that inspires young students to pursue a career in the sciences. Further, these events are made possible by the generosity of our sponsors and supporters who help bring our vision to life, bringing science to audiences across Canada year after year.

Finally, I am personally very grateful to our Chair, Lorne Tyrrell and to all the Gairdner Directors for their support and commitment to me in my new role. I would like to acknowledge the work of the Gairdner Foundation staff who work tirelessly to coordinate our programming around the world and do so with skill, professionalism and efficiency.



Dr. Janet Rossant, CC, PhD, FRS, FRSC
President and Scientific Director, Gairdner Foundation

2016 YEAR IN REVIEW

Report on 2016 Objectives

1. **Maintain the Highest Standards Selecting Recipients of the International, Wightman and Global Health Awards**
    - In 2016, Gairdner began the process of creating a new online portal for Canada Gairdner Award prize nominations. The portal will replace our previously manual system and will not only simplify the nomination process for nominators, it will streamline the review process for our committee members.

2. **Appoint a new President**
    - With just over a year under her belt, our new President & Scientific Director, Dr. Janet Rossant is leading the Gairdner team with strength and vision.

3. **Inspire Canadian Scientists and the Canadian public to Celebrate Excellence by raising the profile of the awards**
    - In 2016, the Gairdner Foundation increased its profile by expanding its range of partnerships to include new collaborations with the Canadian Association of Science Centres and Grand Challenges Canada and strengthened collaborations with our existing university partners.
    - In November of 2016, the Gairdner Foundation hosted its first-ever public lecture in partnership with York University. *Hacking the Genome: The Brave New World of Gene Editing* featured Dr. Feng Zhang, 2016 Canada Gairdner International Award laureate and Core Institute Member, Broad Institute and Associate Professor, MIT in conversation with Gairdner's Dr. Ron Pearlman and York University Professor in the Faculty of Science, Dr. Mark Bayfield. The lecture, which was moderated by Paul Kennedy, host of CBC Radio's *Ideas,* discussed the topic of gene editing using CRISPR-CAS technology with a sold out audience of 500. The highly successful event lays the ground work for a series of lectures in 2017.

4. **Enhance and encourage a culture of science in Canada**
    - Gairdner's successful increase in attendance of the 2016 National and Student Outreach Program and the inaugural public lecture not only raised the Gairdner profile but also served to ignite or enhance a passion for science in all who attended.

"It was such a pleasure to visit many new places in Canada and meet with students, faculty and the public around the country. I was impressed with how motivated and curious the students were, and it was exciting to see their eagerness to advance biomedical research. This engagement was also clear in my meetings with the public, and I was struck by people's desire to really understand the latest scientific advances and be part of the discussion. I believe part of this enthusiasm stems from the important work that the Gairdner Foundation does to raise awareness of the importance of biomedical science in people's everyday lives. "

-Dr. Feng Zhang, 2016 Canada Gairdner International Award laureate

2016 CANADA GAIRDNER AWARD LAUREATES

(2016 Laureates listed below from left to right)

Dr. Anthony S. Fauci
John Dirks Canada Gairdner Global Health Award "for his many pioneering contributions to our understanding of HIV infections and his extraordinary leadership in bringing successful treatment to the developing world"

Dr. Feng Zhang
Canada Gairdner International Award "for development of CRISPR-CAS as a genome editing tool for eukaryotic cells."

Dr. Emmanuelle Charpentier
Canada Gairdner International Award "for development of CRISPR-CAS as a genome editing tool for eukaryotic cells."

Dr. Rodolphe Barrangou
Canada Gairdner International Award "for establishing and characterizing CRISPR-Cas bacterial immune defense system"

Dr. Jennifer Doudna
Canada Gairdner International Award "for development of CRISPR-CAS as a genome editing tool for eukaryotic cells."

Dr. Philippe Horvath
Canada Gairdner International Award "for establishing and characterizing CRISPR-Cas bacterial immune defense system"

Dr. Frank Plummer
Canada Gairdner Wightman Award
Awarded "for his groundbreaking research in Africa in understanding HIV transmission and his leadership at the Canadian National Microbiology Laboratory with pivotal roles in SARS, influenza and Ebola epidemics"

GAIRDNER'S 2016 STUDENT OUTREACH PROGRAM

As part of Gairdner's mission to inspire the next generation of researchers, the Gairdner Foundation hosts targeted programming for high school students at partner universities from coast to coast. The lectures, which focus on each laureate's personal journey in research, serve to ignite a passion for science that we hope translates into increased enrolment in science programs at the post-secondary level. The lectures also give students the opportunity to interact with laureates and learn more about their career and accomplishments. Many laureates cite the Student Outreach Program as their favourite part of receiving the Canada Gairdner Award, and student response is uniformly enthusiastic.

In 2016, the Student Outreach Program reached over 2,900 students from 102 high schools at 15 partner universities.

2016 Student Outreach Program			
Date	**Location**	**Speaker**	**Lecture Title**
Friday, October 14, 2016	University of Winnipeg	**Dr. Frank Plummer,** 2016 Canada Gairdner Wightman Award Laureate, Public Health of Canada/University of Manitoba	*A Career Dealing With Epidemics & Pandemics*
Tuesday, October 18, 2016	Memorial University	**Dr. Arthur Horwich,** 2004 Canada Gairdner International Laureate, Yale University School of Medicine	*Following Your Nose: A Life In Medicine & Science*
Monday, October 24, 2016	McGill University	**Professor Emmanuelle Charpentier**, 2016 Canada Gairdner International Laureate, Max Planck Institute for Infection Biology, Berlin	*The Bacterial Immune System CRISPR-Cas9: From The Understanding Of Its Mechanism & Evolution To The Development Of A Powerful Genome Engineering Technology*
Monday, October 24, 2016	Western University	**Dr. Rodolphe Barrangou**, 2016 Canada Gairdner International Laureate, North Carolina State University, Raleigh, NC	*The Many Hats Scientists Wear*
Monday, October 24, 2016	University of Alberta	**Dr. Feng Zhang,** 2016 Canada Gairdner International Laureate, Broad Institute of MIT & Harvard, Cambridge, MA **Dr. Philippe Horvath,** 2016 Canada Gairdner International Laureate, Senior Scientist, DuPont Fellow Forum Associate, DuPont Nutrition and Health, Dangé-Saint-Romain, France	*Harnessing Nature's Tools to Advance Biology & Medicine* *Research In Industry: The Best Of Both Worlds*
Monday, October 24, 2016	University of British Columbia	**Dr. Frank Plummer** **Dr. Lewis Cantley,** 2015 Canada Gairdner International Laureate, Weill Cornell Medical College, New York	*A Career Dealing With Epidemics & Pandemics* *A Serendipitous Path to Cancer Discovery*
Monday, October 24, 2016	University of Saskatchewan	**Dr. Janet Rossant,** 2015 Canada Gairdner Wightman Laureate & President and Scientific Director, The Gairdner Foundation	*The Winding Road To Becoming A Stem Cell Biologist*
Tuesday, October 25, 2016	Université de Montréal	**Professor Emmanuelle Charpentier**	*The Bacterial Immune System CRISPR-Cas9: From The Understanding Of Its Mechanism & Evolution To The Development Of A Powerful Genome Engineering Technology*

Tuesday, October 25, 2016	University of Waterloo	**Dr. Rodolphe Barrangou**	*The Many Hats Scientists Wear*
Tuesday, October 25, 2016	University of Calgary	**Dr. Philippe Horvath** **Dr. Harold Dvorak,** 2014 Canada Gairdner International Laureate, Beth Israel Deaconess Medical Center, Boston	*Research In Industry: The Best Of Both Worlds* *What Does Cancer Have To Do With A Finger Cut*
Wednesday, October 26, 2016	Carleton University	**Dr. Jennifer A. Doudna**, 2016 Canada Gairdner International Laureate, UC Berkeley &Howard Hughes Medical Institute, Berkeley, CA	*My Whirlwind Affair with CRISPR*
Wednesday, October 26, 2016	York University	**Professor Emmanuelle Charpentier**, 2016 Canada Gairdner International Laureate, Max Planck Institute for Infection Biology, Berlin **Dr. Gillian Hawker,** Sir John and Lady Eaton Professor and Chair of Medicine, University of Toronto	*The Bacterial Immune System CRISPR-Cas9: From The Understanding Of Its Mechanism & Evolution To The Development Of A Powerful Genome Engineering Technology* *From Arts To Sciences & On To Medicine*
Friday, October 28, 2016	University of Toronto	**Dr. Feng Zhang** **Dr. Anthony S. Fauci**, 2016 John Dirks Canada Gairdner Global Health Laureate, National Institutes of Health, Bethesda, MC	*Harnessing Nature's Tools to Advance Biology & Medicine* *From AIDS to Zika: Reflections on a Career in Science & Public Service*
Monday, November 14, 2016	Lethbridge University	**Dr. Rodolphe Barrangou**	*The Many Hats Scientists Wear*
Thursday, March 9, 2017	Lakehead University	**Dr. Adrian Owen**, CERC in Cognition and Neuroimaging, Western University; Member Canada Gairdner Award Medical Review Panel	*The Search for Consciousness: Detecting Awareness in the Vegetative State*

Student Impact: Molly James

Grade twelve student, Molly James attended Dr. Frank Plummer's Student Outreach Lecture at the University of British Columbia in October 2016. Molly attends Gulf Island Secondary School and traveled to the mainland with her dad to hear Dr. Plummer speak. "I'm from a rural area so access to science like this is pretty minimal. I went to the lecture because I know the world is bigger than my island and I wanted to find out more about career paths in science". Molly sat in the front row and of the lecture, soaking up all she could and said the best part of the experience was learning that just because you don't know what you're doing now doesn't mean you won't accomplish something great! "

GAIRDNER'S 2016 NATIONAL PROGRAM

Our National Program is a dynamic and interactive speaker series that brings current and past Canada Gairdner Award laureates to Canada to speak to faculty members and trainees about their research. The Gairdner Foundation celebrates biomedical science research from coast to coast and prides itself on giving Canadians access to scientists from around the world. In 2016, the number of locations was reduced to 17 as part of a re-evaluation of approaches to hosting events with a view to maximizing overall participation and impact. The National Program has a profound impact on Canadian science culture and innovation. It is the only program of its kind in the world of major awards.

In 2016, Gairdner's National Program reached over 3,500 people at 17 universities.

National Program Lectures			
Date	**Location**	**Speaker**	**Lecture Title**
Wednesday, October 12, 2016	University of Manitoba	**Dr. Frank Plummer,** 2016 Canada Gairdner Wightman Award Laureate, Public Health of Canada/University of Manitoba, Winnipeg, Manitoba	*The Untold Story of the National Microbiology Laboratory*
Tuesday, October 18, 2016	Memorial University	**Dr. Arthur Horwich,** 2004 Canada Gairdner International Laureate, Yale University School of Medicine, New Haven, CT	*Action of Molecular Chaperones & Their Relevance to Neurodegenerative Disease*
Friday, October 21, 2016	Université Laval	**Dr. Rodolphe Barrangou,** 2016 Canada Gairdner International Laureate, North Carolina State University, Raleigh, NC	*CRISPR-Cas Systems: From Adaptive Immunity to Genome Editing*
Monday, October 24, 2016	McGill University	**Professor Emmanuelle Charpentier**, 2016 Canada Gairdner International Laureate, Max Planck Institute for Infection Biology, Berlin, Germany	*The Transformative Genome Engineering CRISPR-Cas9 Technology: Mechanism, Evolution & Applications*
Monday, October 24, 2016	Western University	**Dr. Rodolphe Barrangou**	*CRISPR-Cas Systems: From Adaptive Immunity to Genome Editing Machines*
Monday, October 24, 2016	University of Alberta	**Dr. Feng Zhang**, 2016 Canada Gairdner International Laureate, Broad Institute of MIT & Harvard, Cambridge, MA	*Genome Editing Using CRISPR-Cas Systems*

Monday, October 24, 2016	University of British Columbia	**Dr. Frank Plummer** **Dr. Lewis Cantley,** 2015 Canada Gairdner International Laureate, Weill Cornell Medical College, New York, NY	*The Untold Story of The National Microbiology Laboratory* *PI3-Kinase and Cancer Metabolism*
Monday, October 24, 2016	University of Saskatchewan	**Dr. Janet Rossant,** 2015 Canada Gairdner Wightman Laureate & President and Scientific Director, The Gairdner Foundation	*From Embryos To Stem Cells & Back Again*
Tuesday, October 25, 2016	University of Waterloo	**Dr. Rodolphe Barrangou**	*CRISPR-Cas Systems: From Adaptive Immunity to Genome Editing Machines*
Tuesday, October 25, 2016	Université de Montréal	**Professor Emmanuelle Charpentier**	*The Transformative Genome Engineering CRISPR-Cas9 Technology: Mechanism, Evolution & Applications*
Tuesday, October 25, 2016	University of Calgary	**Dr. Philippe Horvath,** 2016 Canada Gairdner International Laureate, Senior Scientist, DuPont Fellow Forum Associate, DuPont Nutrition and Health, Dangé-Saint-Romain, France **Dr. Harold Dvorak,** 2014 Canada Gairdner International Laureate, Beth Israel Deaconess Medical Center, Boston, MA	*CRISPR – Mediated Immunity In Bacteria: Discovery & Applications* *The Tumor Vasculature: Barrier & Potential Target*
Wednesday, October 26, 2016	University of Ottawa	**Dr. Jennifer A. Doudna**, 2016 Canada Gairdner International Laureate, Howard Hughes Medical Institute, CA	*CRISPR Biology: Nature's Toolbox for Genome Engineering*
Wednesday, October 26, 2016	McMaster University	**Dr. Frank Plummer**	*The Untold Story of The National Microbiology Laboratory*
Wednesday, October 26, 2016	York University	**Professor Emmanuelle Charpentier**	*The Transformative Genome Engineering CRISPR-Cas9 Technology: Mechanism, Evolution & Applications*
Wednesday, October 26, 2016	University of Guelph	**Dr. Rodolphe Barrangou**	*CRISPR-Cas Systems: From Adaptive Immunity to Genome Editing Machines*
Monday, November 14, 2016	University of Lethbridge	**Dr. Rodolphe Barrangou**	*CRISPR-Cas Systems: From Adaptive Immunity to Genome Editing Machines*
Thursday, March 9, 2017	Lakehead University	**Dr. Adrian Owen**, CERC in Cognition and Neuroimaging, Western University; Member Canada Gairdner Award Medical Review Panel	*The Search for Consciousness: Detecting Awareness in the Vegetative State*

Laureate Impact: Dr. Rodolphe Barrangou

"It is a unique opportunity for the speakers to reach out to Canadian students across provinces and get a personal feel for the breadth and depth of Canadian research and education. Engaging with students was extremely rewarding- a reminder of why I chose a research career in the first place!"

-Dr. Rodolphe Barrangou, 2016 Canada Gairdner International Award laureate

2016 Canada Gairdner Recipients Lecture *Minds that Matter*- Thursday October 27, 2016 MacLeod Auditorium, University of Toronto		
Time	**Speaker(s)**	**Session/presentation title**
9:00– 9:05 a.m.	**Janet Rossant**, President & Scientific Director, The Gairdner Foundation, Toronto, Ontario	*Opening Session – Welcome Remarks*
9:05– 9:10 a.m.	**L. Trevor Young,** Dean, Faculty of Medicine, Vice-Provost, Relations with Health Care Institutions, University of Toronto, Toronto, Ontario	*Chair's Remarks*
9:10 - 9:40 a.m.	**Rodolphe Barrangou,** Associate Professor, Department of Food, Bioprocessing & Nutrition Sciences; Todd R. Klaenhammer Distinguished Scholar in Probiotics Research North Carolina State University, Raleigh, North Carolina, USA	*CRISPR-Cas Systems in Bacteria: Discovery and Applications*
9:40– 10:10 a.m.	**Philippe Horvath**, Senior Scientist, DuPont, Dange-Saint-Romain, France	*CRISPR-Cas Systems in Bacteria: Discovery and Applications*
10:30– 11:00 a.m.	**Jennifer A. Doudna**, Li Ka Shing Chancellor's Chair in Biomedical & Health Sciences; Professor of Molecular & Cell Biology & Professor of Chemistry at UC Berkeley; Investigator of the Howard Hughes Medical Institute, Berkeley, California, USA	*CRISPR-Cas Genome Engineering: Advent & Application of A Transformative Technology*
11:00 – 11:30 a.m.	**Emmanuelle Charpentier**, Scientific Member of the Max Planck Society, Director at the Max Planck Institute for Infection Biology, Berlin, Germany; Professor, Umea University, Umea, Sweden	*The Transformative Genome Engineering Technology CRISPR-Cas9: Biology, Mechanisms, Evolution & Applications*
1:00 – 1:05 p.m.	**Philip Marsden**, Professor of Medicine, St. Michael's Hospital, Elisabeth Hofmann Research Chair, Oreopoulos-Baxter Division Director Nephrology, Department of Medicine, University of Toronto	*Chair Remarks*

1:05 – 1:35 p.m.	**Feng Zhang**, Core Member, Broad Institute of MIT & Harvard; Investigator, McGovern Institute for Brain Research, Massachusetts Institute of Technology; W. M. Keck Career Development Professor in Biomedical Engineering, Departments of Brain & Cognitive Sciences & of Biological Engineering, Massachusetts Institute of Technology; Cambridge, Massachusetts, USA; Robertson Investigator, New York Stem Cell Foundation	*Genome Editing Using CRISPR-Cas Systems: Development and Prospects*
1:35– 2:05 p.m.	**Frank Plummer**, Special Advisor to the Chief Public Health Officer, Public Health Agency of Canada; Distinguished Professor, Medical Microbiology, College of Medicine, Faculty of Health Sciences, University of Manitoba & former Tier 1 Canada Research Chair in Resistance & Susceptibility to Infections (2001 – 2014)	*Untold Story of The National Microbiology Laboratory*
2:05– 2:35 p.m.	**Anthony S. Fauci**, Director, National Institute of Allergy & Infectious Diseases, National Institutes of Health, Bethesda, Maryland	*Three Decades of Global Health Science and Policy: A Personal Journey*
2:35– 2:45 p.m.	**Janet Rossant**, President & Scientific Director, The Gairdner Foundation, Toronto	*Concluding Remarks*

2016 Gairdner Symposium *Gene Editing: From Bacterial Immunity to Global Impact* – Friday, October 28, 2016 MacLeod Auditorium, University of Toronto		
Time	**Speaker**	**Titles**
9:00 – 9:05 a.m.	**Janet Rossant**, President & Scientific Director, The Gairdner Foundation, Toronto, Ontario	*Opening Session – Welcome Remarks*
9:05– 9:10 a.m.	**Karen Maxwell**, Terrence Donnelly Centre for Cellular & Biomolecular Research, University of Toronto, Toronto, Ontario	*Chairs Remarks*
9:10 – 9:40 a.m.	**Sylvain Moineau**, Professor, Canada Research Chair in Bacteriophages, Department of Biochemistry, Microbiology and Bioinformatics, Faculty of Sciences & Engineering, Université Laval, Quebec City, Quebec	*CRISPR-Cas Systems: From Humble Beginnings to Today's Headlines*
9:40 – 10:10 a.m.	**Jonathan Weissman**, UCSF, Professor, School of Medicine, Cellular Molecular Pharmacology, San Francisco, CA	*Controlling the Volume of Gene Expression with CRISPRi and CRISPRa*
10:30 – 11:00 a.m.	**Daniel Durocher**, Senior Investigator, The Lunenfeld-Tanenbaum Research Institute, Professor, Department of Molecular Genetics, University of Toronto, Toronto	*Manipulating DNA Repair To Improve Gene Editing*
11:00– 11:30 a.m.	**Anthony James**, Distinguished Professor, Microbiology & Molecular Genetics, & Molecular Biology & Biochemistry, University of California, Irvine, CA, USA	*Synthetic Biology and Malaria*
12:45 – 12:50 p.m.	**Jim Woodgett**, Director of Research & Senior Investigator, Lunenfeld-Tanenbaum Research Institute, Toronto	*Chair Remarks*
12:50– 1:20 p.m.	**Paula Cannon**, PIBBS MENTOR**,** Professor, Molecular Microbiology & Immunology, Pediatrics, Biochemistry & Molecular Biology, USC, Keck School of Medicine, Los Angeles, USA	*Gene Editing for HIV/Aids*
1:20– 1:50 p.m.	**Francoise Baylis**, Professor and Canada Research Chair in Bioethics and Philosophy Dalhousie University Faculty of Medicine, Novel Tech Ethics, Halifax, Nova Scotia	*Human Gene Editing: Insights from Slow Science*
1:50– 2:25 p.m.	**Paula Cannon, Sylvain Moineau, Francoise Baylis, Emmanuelle Charpentier, Rodolphe Barrangou, Phillippe Horvath**	*Round table Discussion* *Chair: Janet Rossant*
2:25- 3:00 p.m.	**Janet Rossant**, President & Scientific Director, The Gairdner Foundation, Toronto, Ontario	*Closing Remarks*
Total attendance (Thursday, Friday symposia)		1,000
Total webcast subscribers (Thursday, Friday symposia)		1,200

ADDITIONAL GAIRDNER PROGRAMMING ACROSS CANADA

Canada Gairdner Symposium - Cancer Discoveries: Molecules to Man

This two-day symposium was held on May 25-26 in Edmonton, Alberta in partnership with the University of Alberta and Alberta Innovates Health Solutions. The Symposium brought together leaders from around the world to celebrate the discoveries that have formed our current view of the workings of the cell and to highlight future areas of investigation and discovery in cell biology and molecular medicine.

The symposium began with a keynote from Dr. Dennis Slamon, an internationally known cancer researcher from the University of California, Los Angeles, who gave a public lecture *"New and Novel Approaches to Breast Cancer"*. Dr. Slamon is one of the pioneers of the breast cancer drug, Herceptin.

More than 300 participants attended.

2016 Gairdner Symposia: The Gairdner Foundation & McMaster University Farncombe Institute Symposium *The Intestinal Microbiome: Beyond Associations and Into the Clinic*

A one-day symposium was held at McMaster University on November 24 in partnership with its Farncombe Institute. The collaboration brought renowned international scientists together in Hamilton for an informative discussion on the microbiome.

200 participants attended.

Public Lecture: Hacking the Genome: The Brave New World of Gene Editing

On November 2, 2016 a sold out public lecture was held in partnership with York University on the gene editing technology, CRISPR-Cas9 and how it is transforming the world of bioengineering. The event featured 2016 Canada Gairdner International Awardee, Dr. Feng Zhang, was moderated by Paul Kennedy, host of CBC Radio One's Ideas and featured a panel discussion with Dr. Ron Pearlman, Gairdner's Associate Scientific Director and Mark Bayfield, Biology Professor, York University.

500 members of the public attended.

Canada Gairdner Symposium on Concussion

On November 30, the University of Calgary hosted the Gairdner Symposium on Concussion in collaboration with the Alberta Children's Hospital Research Institute, the Hotchkiss Brain Institute and the Integrated Concussion Research Program at the University of Calgary. The Symposium raised public awareness, provided insights into recent discoveries in this important and developing area of research and stimulate progress in the scientific community.

The symposium started with a public forum on November 29 featuring broadcaster and writer Jay Ingram, retired Calgary Stampeder, Jon Cornish, Hockey Canada's Paul Carson and experts from the University of Calgary's Concussion Research Program.

200 participants attended.

2016 Canada Gairdner Awards Gala

The Canada Gairdner Awards Gala took place on Oct 28 at the Royal Ontario Museum. The Honourable Dr. Jane Philpott addressed the audience and brought greetings from the Prime Minister.

550 representatives of government, academia and industry attended.

World AIDs Day: Panel Discussion on Global Health

On December 2, 2016 Canada Gairdner Laureates Drs. Fauci and Plummer participated in a discussion global health in Ottawa. The event which took place in partnership with the International Development Research Centre, featured individual presentations from laureates as well as a panel discussion and open question period.

70 participants attended.

GAIRDNER THANKS ITS 2016 SUPPORTERS

The Gairdner Foundation thanks its supporters for making our coast-to-coast programming possible.

Burroughs Wellcome Fund
Harry & Evelyn Rosen
Janssen Canada
Merck

Ontario Institute for Cancer Research
Sanofi Pasteur

TELUS Health
University Health Network
Western University

THE YEAR AHEAD: OBJECTIVES FOR 2017

The Awards and the National and Student Outreach Programs are mature and stable programs that contribute to Canada's culture of science by presenting the world's best scientific research across the country. Looking forward, our goal is to increase the international profile and reach of the Canada Gairdner Awards.

Performance Goals for 2017

1. **Enhance participation in National Program**
   We expect to maintain our partnership with universities across the country to execute our National Program. In 2017, we will expand programming at our partner universities and formalize the non-lecture components of laureate visits.

2. **Build on success of past Student Outreach Program events**
   We will continue to gather student feedback from each event, and use the results to evaluate their success. We will increase our social media promotion and support of student programs to enhance student interaction and engagement.

3. **Enhance the international profile of the Canada Gairdner Awards**
   We continue our efforts to raise Gairdner's profile through international events and enhanced marketing and communications that share the story of our awardees and our history.

   In 2017, we will engage in a public lecture series that gives the general public access to discussions of leading edge scientific research and its implications on everyday life.

4. **Continue to increase the number and quality of the nominations**
   The Foundation proactively seeks new nominations for all three awards. We have developed a new online portal for collecting and reviewing nominations which will make the process easier and more streamlined for nominators, reviewers and our staff.

5. **Partner in research symposia with institutions in Ontario, Alberta and Quebec**
   Gairdner developed a call for nominations process to select the hosts of national symposia in 2016 and this process will be continued for the future.

   Once selected, partner institutions will plan and execute a symposium aligned with the research areas of current or past laureates. These events will increase Gairdner's profile and expose Canada's most prestigious scientific award to a new audience in the provinces where funding is provided by the provincial government.

6. **Engage a broader audience through an enhanced public lecture series of three annual events**
   Building off the success of the public lecture in November of 2016, we will endeavor to provide more public programming to increase the accessibility of our laureates' science. Hosting public lectures will raise awareness of the Gairdner Foundation, increase our profile and help us meet our goal of inspiring Canadians to pursue careers in science.

GOVERNANCE

The Gairdner Foundation is governed by a 14 member Board of Directors. The Board is comprised of individuals who bring their expertise from the academic, private and public sectors. Board members are nominated and appointed for a maximum term of 3 years, renewable 3 times. Directors are not compensated for their regular Board and Committee duties.

The Board is responsible for overseeing the management of the organization, and through its committees, conducts detailed examinations of issues and opportunities. The Directors provide strategic insight and leadership, as well as effective governance for the Foundation and work diligently to maintain and extend the capacity of the Foundation to achieve its purpose and goal.

The Board meets a minimum of twice each year. Directors of the Board take their role seriously and to the best of their ability, strive to be active participants in all Board and Committee meetings. During 2016, the Board met 3 times.

2016 Board of Directors

Dr. D. Lorne Tyrrell
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Director, Li Ka Shing Institute of Virology
Edmonton, AB

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Chancellor Emeritus,
University of Alberta
Edmonton, AB

Michael Horgan
Senior Advisor, Bennett Jones LLP
Former Deputy Minister, Finance

John Upton
Director
Vancouver , BC

Standing Committees of the Board of Directors		
Standing Committee	**Members**	**Number of meetings/year**
Committee of Directors	Lorne Tyrrell, Chair Cal Stiller Heather Munroe-Blum Bren Gairdner	As required
Audit Committee	Eric Newell, Chair John Upton Gary Goldberg Michael Horgan Melissa Todd	2-3
Investment Committee	Brandt Louie, Chair Cal Stiller Eric Newell Bren Gairdner	4
Governance and Nominating Committee	Lorne Tyrrell, Chair Ann McCaig Heather Munroe-Blum John Upton	1 (minimum)
Fundraising Committee	John Risley, Chair Darren Entwistle Heather Munroe-Blum Ann McCaig	4

2016 Gairdner Foundation Committees (For selection of 2016 laureates)

Medical Review Panel

Philip Marsden, Co-Chair
Professor of Medicine, Renal Division, University of Toronto; Keenan Chair in Medical Research, St. Michaels Hospital, Toronto, ON

Paul Kubes, Co-Chair
Professor, Departments of Physiology & Pharmacology, University of Calgary, Calgary, AB

John Aitchison
Senior VP & Executive Director of Integrative Biology, Institute for Systems Biology, Seattle, USA

Sonia Anand
Professor, Department of Medicine, McMaster University, Hamilton, ON

David Andrews
Director, Biological Sciences, Sunnybrook Research Institute, Toronto, ON

Barbara Ballermann
Professor & Chair, Department of Medicine, University of Alberta, Edmonton, AB

Steffany Bennett
Professor, Department of Biochemistry, Microbiology and Immunology, University of Ottawa, Ottawa, ON

Benjamin Blencowe
Director, Donnelly Sequencing Centre, University of Toronto, Toronto, ON

Jacques Côté
Professor, Dept. of Molecular Biology, Medical Biochemistry & Pathology, Université Laval, Québec City, QC

Pauline Johnson
Department of Microbiology & Immunology, University of British Columbia, Vancouver, BC

Stephen Jones
Associate Director & Head, Bioinformatics, Genome Sciences Centre , British Columbia Cancer Research Centre, Vancouver, BC

Yves De Koninck
Professor, Psychiatry & Neuroscience, Université Laval, Québec City, QC

Daniel Durocher
Senior Investigator, Samuel Lunenfeld Research Institute, Mount Sinai Hospital, Toronto, ON

John R. Gordon
Co-chair, Immunology Research Group, University of Saskatchewan, Saskatoon, SK

Lea Harrington
Professor, Department of Medicine, Université de Montréal; Visiting Professor, Wellcome Trust, University of Edinburgh; Montréal, QC

Gillian Hawker
Sir John and Lady Eaton Professor & Chair, Department of Medicine, University of Toronto, Toronto, ON

Richard Hawkes
Professor, Department of Cell Biology & Anatomy, University of Calgary, Calgary, AB

Geoff Hicks
Director, Regenerative Medicine, Manitoba Institute of Cell Biology, University of Manitoba, Winnipeg, MB

David Kelvin
Senior Scientist, Toronto General Research Institute, UHN, Toronto, ON

Gary Kobinger
Director, Centre de recherche en infectiologie, Université Laval, Québec City, QC

Olga Kovalchuk
Professor & Board of Governors Research Chair, University of Lethbridge, Lethbridge, AB

Dale Laird
Professor & Canada Research Chair in Gap Junctions and Disease, Schulich School of Medicine, University of Western Ontario, London, ON

David Lillicrap
Professor, Department of Pathology & Molecular Medicine, Queen's University, Kingston, ON

Paola Marcato
Assistant Professor, Department of Pathology, Dalhousie University, Halifax, NS

Tim Murphy
Professor, Department of Psychiatry, University of British Columbia, Vancouver, BC

Adrian Owen
Canada Excellence Research Chair in Cognitive Neuroscience and Imaging, The Brain and Mind Institute, Western University, London, ON

Lynne-Marie Postovit
Co-Director, Basic Research, Cancer Research Institute of Northern Alberta, University of Alberta, Edmonton, AB

Michael Salter
Head & Senior Scientist, Neurosciences & Mental Health, Hospital for Sick Children, Toronto, ON

Michel Tremblay
Professor, Department of Biochemistry, McGill University, Montréal, QC

Jeffrey Weitz
Executive Director, Thrombosis & Atherosclerosis Research Institute, McMaster University, Hamilton, ON

Raymund J. Wellinger
Head, Department of Microbiology & Infectious Diseases, Faculty of Medicine, Université de Sherbrooke, Sherbrooke, QC

Terry-Lynn Young
Associate Professor, Faculty of Medicine Genetics, Memorial University, St. John's, NL

Gerald Zamponi
Professor, Cumming School of Medicine, University of Calgary, Calgary, AB

Peter Zandstra
Professor, Donnelly Centre for Cellular & Biomolecular Research, University of Toronto, Toronto, ON

Mei Zhen
Senior Investigator, Lunenfeld-Tanenbaum Research Institute, University of Toronto, Toronto, ON

Medical Advisory Board

John Dirks, Chair
President and Scientific Director, Gairdner Foundation, Toronto, ON

Philip Marsden, Co-Chair, MRP
Professor of Medicine, Renal Division, University of Toronto; Keenan Chair in Medical Research, St. Michaels Hospital, Toronto, ON

Paul Kubes, Co-Chair, MRP
Professor, Departments of Physiology & Pharmacology, University of Calgary, Calgary, AB

Professor Sir John Bell
Regius Professor of Medicine, University of Oxford, Oxford, UK

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President, The Salk Institute, San Diego, CA

Michel Bouvier
Chief Executive Officer, IRIC, University of Montreal, Montreal, QC

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Pascale Cossart
Distinguished Professor, Institut Pasteur, Paris, France

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Jeffrey Friedman
Marilyn M. Simpson Professor, Laboratory of Molecular Genetics, Rockefeller University, New York, NY

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Canada Research Chair in Human Genetics & Molecular Medicine, University Killam Professor, Department of Medical Genetics, Centre for Molecular Medicine and Therapeutics, University of British Columbia, Vancouver, BC

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Director, Michael Smith Laboratories, University of British Columbia, Vancouver, BC

Jan Hoeijmakers
Professor, Molecular Genetics, Erasmus University Rotterdam, Rotterdam, Netherlands

Robert Horvitz
Professor of Biology, Massachusetts Institute of Technology, Cambridge, MA

Arthur Horwich
Professor, Yale School of Medicine, New Haven, CT

Herbert Jäckle
Director, Max Planck Institute for Biophysical Chemistry, Göttingen, Germany

Thomas Jessell
Co-Director, Kavli Institute for Brain Science, Columbia University, New York, NY

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Head, School of Biomedical Sciences, University of Melbourne, Victoria, Australia

Patrick Maxwell
Regius Professor Physic, University of Cambridge, Cambridge, UK

Kazutoshi Mori
Professor, Department of Biophysics, Graduate School of Science, Kyoto University, Kyoto, Japan

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Theresa & Eugene Lang Professor, Rockefeller University, New York, NY

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Director, Montreal Neurological Institute & Hospital, Montreal, QC

Randy Schekman
Professor, Department of Molecular & Cell Biology, University of California Berkeley, Berkeley, CA

Phillip Sharp
Professor, David H. Koch Institute for Integrative Cancer Research, Massachusetts Institute of Technology, Cambridge, MA

Michael Strong
Dean, Schulich School of Medicine &Dentistry, Western University, London, ON

Jack Szostak
Professor, Department of Genetics, Harvard Medical School, Boston, MA

Sam Weiss
Director, Hotchkiss Brain Institute, University of Calgary, AB

Jim Woodgett
Director, Lunenfeld-Tanenbaum Research Institute, Mt. Sinai Hospital, Toronto, ON

Richard Wozniak
Professor, Department of Cell Biology, University of Alberta, Edmonton, AB

Wightman Award Advisory Committee

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President and Scientific Director, The Gairdner Foundation, Toronto, ON

Jane Aubin
Executive Vice-President, Chief Scientific Officer, CIHR, Ottawa, ON

Lorne Babiuk
Vice President (Research), University of Alberta, Edmonton, AB

Alistair Buchan
Dean of Medicine & Professor of Stroke Medicine, University of Oxford, Oxford, UK

Stephen Collins
Associate Dean, Faculty of Health Sciences, McMaster University, Hamilton, ON

David Eidelman
Vice President (Health Affairs) & Dean, Faculty of Medicine, McGill University, Montreal, QC

James Hogg
Emeritus Professor, University of British Columbia, Vancouver, BC

Mona Nemer
Vice-President (Research),University of Ottawa, Ottawa, ON

Rémi Quirion
Chief Scientist Officer, Fonds de recherche du Quebec, Montréal, QC

Lap-Chee Tsui
Vice Chancellor & President, University of Hong Kong, Hong Kong, China

Trevor Young
Dean, Faculty of Medicine, University of Toronto, Toronto, ON, Canada

Global Health Award Advisory Committee

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President and Scientific Director, Gairdner Foundation, Toronto, ON

Professor Sir John Bell, (Co-Chair)
Regius Professor of Medicine, University of Oxford, Oxford, UK

Peter Agre
Director, Johns Hopkins Malaria Research Institute, Baltimore, MD

Alan Bernstein
President, CIFAR, Toronto, ON

Haile Debas
Executive Director, UCSF Global Health Sciences, San Francisco, CA

Jeremy Farrar
Director, Wellcome Trust, Oxford, UK

Roger Glass
Director, Fogarty International Center, National Institutes of Health, Baltimore, MD

Glenda Gray
President, South African Medical Research Council, Johannesburg, South Africa

Kiyoshi Kurokawa
Professor, National Graduate Institute for Policy Studies, Tokyo, Japan

Trevor Mundel
President, Global Health Program, Gates Foundation, Seattle, WA

K. Srinath Reddy
President, Public Health Foundation of India, Delhi, India

Allan Ronald
Professor Emeritus, Medical Microbiology, University of Manitoba, Winnipeg, MB

Sir Mark Walport
Chief Scientific Advisor, UK Government, London, UK

Tachi Yamada
Managing Partner, Mountain Field LLC, Seattle, WA

2016 FINANCIAL HIGHLIGHTS

The Gairdner Foundation maintains proper financial controls and sound management practices to ensure the best use of its public and private funds. Our external auditors issued an unqualified audit opinion about the Gairdner Foundation financial statements which appear at the end of this report.

In 2008, the Foundation received a $20 Million grant from the Federal government for the purpose of supporting and enhancing the Gairdner International Awards Program. Proceeds from the grant can be used to fund the Foundations' activities, however only the income from the fund may be used until the funding agreement terminates.

In 2008, the Foundation also received $2 million from the Alberta government for the purpose of expanding the Gairdner Outreach Program in Alberta.

These funds have been invested together with the original family endowment under the guidance of the Investment Committee, and in accordance with the terms of these agreements and prudent governance. The investment policy adopted by the Board has been designed with the principal objective being preservation of capital over the long-term.

Planning and Monitoring Investments

The Foundation has a duty to ensure responsible stewardship of funds. The Investment Committee oversees the management and investment of the Gairdner Foundation funds in compliance with our funding agreements. The Foundation's funds have been invested with 3 major objectives:

1. Preservation of capital
2. Income to meet the administrative costs and award objectives of the Foundation
3. Growth in the 'capital' value of the Portfolio's assets in real (inflation-adjusted) terms

The investment strategy and policy are reviewed annually and the portfolio is reviewed on a quarterly basis. Based on the Foundation's investment objectives, risk tolerance, income requirements and liquidity needs, the long term target asset allocation of 35% fixed income, 50% equity and 15% alternative strategies was approved by the Board in the early 2016. The portfolio ended the year with 36% cash/fixed income, 49% equities and 15% alternatives.

Despite a great deal of uncertainty and volatility in the markets in 2016, the investment portfolio increased from $31.1 million at the end of 2015 to $32.7 million at the end of 2016. Equity markets were very strong in Q3, and continued to rally in Q4 following the US election. Canadian equities had a strong year with recoveries in energy and materials as well as financials, posting a 21% return for the year. Emerging markets were volatile posting mixed returns. US markets were up by 8.3% and Alternatives were up by 2.3%.

Returns for 2016 were $2.7 million representing ROI of 8.8% net of fees vs. the benchmark of 6%, before fees for a similar weighted portfolio.

ROI since inception has been $13.7 million, representing an annualized rate of return of 5.9% net of fees, compared to the benchmark of 6% gross of fees. ROI since inception, net of fees has been higher than the benchmark at far lower risk.

Results of Operations

Revenue for the year totaled $3.2 million, comprised of $1.0 million from non-governmental sources and table sales (29% compared to 36% in 2015), $1.7 million from government (54% compared to 57% in 2015), and $0.5 million from investment income (17% compared to 7% in 2015). Every year the Foundation seeks sponsors from both the public and private sector.

Revenue increased by $0.4 million over 2015, however private sector fundraising has become increasingly difficult. Income from investments increased by $0.3 million as the equity markets rallied post US election. Returns have been reduced by historically low interest rates on fixed income investments.

Expenditures were $2.5 million for the year, a decrease of $0.1 million from 2015, primarily due to the lower administration costs.

GAIRDNER FOUNDATION STAFF as of December 2016

Dr. Janet Rossant, *President & Scientific Director*

Sommer Wedlock, *Vice President & Director of Communications*

Penny Balberman, *Director of Finance*

Nora Cox, *Office Manager*

Sarah Devonshire, *Projects Manager & Executive Coordinator*

Shamira Furman, *Research Officer*

Paige Johnson, *Manager, Fund Development & Communications*

Gairdner employs 4 full-time employees and 3 part-time employees.

COMPENSATION

Directors

Directors are not compensated for regular Board and Committee duties. They may, however, be compensated for any reasonable out-of-pocket expenses incurred while performing their duties or attending Foundation meetings.

Senior Officers

For the fiscal year ending December 31, 2016, compensation for senior officers was:

Dr. Janet Rossant, President and Scientific Director	$200,000
Sommer Wedlock, VP & Director of Communications	$150,000
Penny Balberman, Director of Finance	$81,000

AUDITOR'S REPORT

Financial Statements

The Gairdner Foundation

December 31, 2016

Building a better working world

Independent auditors' report

To the Members of
The Gairdner Foundation

We have audited the accompanying financial statements of **The Gairdner Foundation**, which comprise the statement of financial position as at December 31, 2016, and the statements of operations, changes in net assets and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's responsibility for the financial statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of **The Gairdner Foundation** as at December 31, 2016 and the results of its operations and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

Ernst & Young LLP

Chartered Professional Accountants
Licensed Public Accountants

Toronto, Canada
May 16, 2017

The Gairdner Foundation

Statement of financial position

As at December 31

	2016 $	2015 $
Assets		
Current		
Cash and cash equivalents	**360,869**	267,929
Accounts receivable	**124,815**	138,739
Prepaid expenses	**82,465**	11,017
Total current assets	**568,149**	417,685
Investments *[note 3]*	**32,707,286**	31,092,068
Capital assets, net *[note 4]*	**14,700**	18,406
	33,290,135	31,528,159
Liabilities and net assets		
Current		
Accounts payable and accrued liabilities	**801,107**	867,181
Total current liabilities	**801,107**	867,181
Federal government funding *[note 5]*	**23,332,817**	22,257,194
Alberta government funding *[note 6]*	**2,393,152**	2,318,535
	25,725,969	24,575,729
Total liabilities	**26,527,076**	25,442,910
Commitments *[note 8]*		
Net assets		
Unrestricted	**500,000**	500,000
Internally restricted *[note 7]*	**6,263,059**	5,585,249
Total net assets	**6,763,059**	6,085,249
	33,290,135	31,528,159

See accompanying notes

On behalf of the Board:

Director Director

The Gairdner Foundation

Statement of operations

Year ended December 31

	2016 $	2015 $
Revenue		
Investment income *[note 3]*		
Interest and dividends	**100,826**	132,747
Realized gain on investments	**302,973**	137,360
Net change in unrealized gain (loss) on investments	**135,230**	(56,732)
	539,029	213,375
Federal government grant funding *[note 5]*	**895,912**	903,852
Alberta government grant funding *[note 6]*	**130,758**	145,654
Other government grants	**711,302**	573,235
Table sales	**640,680**	606,250
Other contributions and sponsorships	**295,792**	415,922
	3,213,473	2,858,288
Expenses		
Awards	**700,000**	700,000
National events	**602,136**	570,808
Advisory boards	**223,812**	225,383
Marketing and communications	**121,180**	140,365
Administrative	**888,535**	983,215
	2,535,663	2,619,771
Excess of revenue over expenses for the year	**677,810**	238,517

See accompanying notes

The Gairdner Foundation

Statement of changes in net assets

Year ended December 31

	2016		
	Unrestricted	**Internally restricted**	**Total**
	$	$	$
		[note 7]	
Balance, beginning of year	**500,000**	**5,585,249**	**6,085,249**
Excess of revenue over expenses for the year	**677,810**	—	**677,810**
Interfund transfer *[note 7]*	**(677,810)**	**677,810**	—
Balance, end of year	**500,000**	**6,263,059**	**6,763,059**

	2015		
	Unrestricted	**Internally restricted**	**Total**
	$	$	$
		[note 7]	
Balance, beginning of year	500,000	5,346,732	5,846,732
Excess of revenue over expenses for the year	238,517	—	238,517
Interfund transfer *[note 7]*	(238,517)	238,517	—
Balance, end of year	500,000	5,585,249	6,085,249

See accompanying notes

The Gairdner Foundation

Statement of cash flows

Year ended December 31

	2016 $	2015 $
Operating activities		
Excess of revenue over expenses for the year	**677,810**	238,517
Add (deduct) non-cash items		
Amortization of capital assets	**8,704**	8,827
Re-invested investment income	**(539,029**)	(213,375)
Government funding recognized as revenue	**(1,026,670)**	(1,049,506)
	(879,185)	(1,015,537)
Changes in non-cash working capital balances related to operations		
Accounts receivable	**13,924**	(25,129)
Prepaid expenses	**(71,448)**	2,605
Accounts payable and accrued liabilities	**(66,074)**	141,783
Cash used in operating activities	**(1,002,783)**	(896,278)
Investing activities		
Purchase of capital assets	**(4,998)**	(625)
Withdrawals from investments held by third parties	**1,100,721**	903,499
Cash provided by investing activities	**1,095,723**	902,874
Net increase in cash and cash equivalents during the year	**92,940**	6,596
Cash and cash equivalents, beginning of year	**267,929**	261,333
Cash and cash equivalents, end of year	**360,869**	267,929

See accompanying notes

The Gairdner Foundation

Notes to financial statements

December 31, 2016

1. Purpose of the organization

The Gairdner Foundation [the "Foundation"] provides awards to medical scientists in recognition of outstanding discoveries and contributions to medical science, and as an incentive to those who follow in their footsteps. In addition to encouraging and rewarding individuals, the Foundation presents the Gairdner Awards in order to focus public, professional and scientific attention on significant achievements in the field of health sciences.

The Foundation, was incorporated under the laws of Ontario until October 2, 2013 and is currently incorporated under the *Canada Not-for-profit Corporations Act*. The Foundation is registered as a charitable organization under the *Income Tax Act (Canada)* [the "Act"] and, as such, is exempt from income taxes and is able to issue donation receipts for income tax purposes.

2. Summary of significant accounting policies

These financial statements are prepared in accordance with Part III of the CPA Canada Handbook – Accounting, which sets out generally accepted accounting principles for not-for-profit organizations in Canada and includes the significant accounting policies set out below.

Cash and cash equivalents

Cash and cash equivalents consist of cash on deposit and short-term investments with maturities of less than 90 days at the date of purchase. Cash and cash equivalents exclude amounts that are managed for returns rather than being held for liquidity.

Financial instruments

Investments reported at fair value consist of equity instruments that are quoted in an active market as well as investments in pooled funds and any investments in fixed income securities that the Foundation designates upon purchase to be measured at fair value. Transaction costs are recognized in the statement of operations in the period during which they are incurred.

Investments in fixed income securities not designated to be measured at fair value are initially recorded at fair value net of transaction costs and are subsequently measured at amortized cost using the straight-line method, less any provision for impairment.

All transactions are recorded on a trade date basis.

Other financial instruments, including accounts receivables, and accounts payable and accrued liabilities, are initially recorded at their fair value and are subsequently measured at cost, net of any provisions for impairment.

Notes to financial statements

December 31, 2016

Capital assets

Capital assets are recorded at acquisition cost less accumulated amortization. Contributed capital assets are recorded at fair value at the date of contribution. Amortization is recorded in the accounts at rates intended to write off the cost of the assets over their estimated useful lives.

Rates and methods of amortization are as follows:

Asset	Years	Method
Office equipment	5	straight-line
Computer equipment	3	straight-line
Leaseholds improvements	Term of lease	straight-line

Revenue recognition

The Foundation follows the deferral method of accounting for contributions, which include grants and donations. Grants and bequests are recognized when received or receivable if the amount to be received can be reasonably estimated and collection is reasonably assured. Other donations are recorded when received, since pledges are not legally enforceable claims. Unrestricted contributions are recognized as revenue when initially recorded in the accounts. Externally restricted contributions are deferred when initially recorded in the accounts and recognized as revenue in the year in which the related expenses are recognized. Sponsorships and related event revenues are recognized when the event takes place.

Investment income (loss), which consists of interest, dividends, income distributions from pooled funds, and realized and unrealized gains and losses, net of safekeeping and investment management expenses, is recorded as revenue in the statement of operations, except to the extent that it relates to restricted contributions, in which case it is added directly to those balances.

Foreign currency translation

Transactions denominated in foreign currencies are translated into Canadian dollars at exchange rates prevailing at the transaction date. Monetary assets and liabilities are translated into Canadian dollars at exchange rates in effect as at the balance sheet date. Non-monetary assets and liabilities are translated at the historic rate. Exchange gains and losses are included in the statement of operations except to the extent that they relate to investments, in which case they are accounted for consistent with investment income (loss).

Contributed materials and services

Because of the difficulty in determining fair value, contributed materials and services are not recognized in the financial statements.

Notes to financial statements

December 31, 2016

3. Investments

Investments consist of the following:

	2016		2015	
	$	%	$	%
Cash and cash equivalents	**1,496,286**	**4.6**	1,840,967	5.9
Bond				
Canadian	**9,059,000**	**27.7**	11,063,000	35.6
International	**1,286,000**	**3.9**	2,469,000	7.9
Equities				
Canadian	**5,656,000**	**17.3**	4,078,000	13.1
US	**6,769,000**	**20.7**	5,242,000	16.9
Other international	**3,573,000**	**10.9**	3,805,000	12.3
Hedge funds	**4,868,000**	**14.9**	2,594,101	8.3
	32,707,286	**100.0**	31,092,068	100.0

Investments in pooled funds have been included above based on their underlying asset mix.

As at December 31, 2016, bonds have an average term to maturity of 4.3 years [2015 – 4.3 years] and a weighted average yield of 3.0% [2015 – 2.91%].

Investment income recorded in the statement of operations is calculated as follows:

	2016	2015
	$	$
Interest and dividends	**678,911**	861,980
Realized gain on investments	**1,526,551**	718,191
Net change in unrealized gain (loss) on investments	**681,367**	(296,626)
Total investment income	**2,886,829**	1,283,545
Less safekeeping and investment management expenses	**(170,890)**	(167,911)
Investment income, net of safekeeping and investment management expenses	**2,715,939**	1,115,634
Less investment income related to:		
Federal government funding *[note 5]*	**(1,971,535)**	(815,495)
Alberta government funding *[note 6]*	**(205,375)**	(86,764)
Investment income recognized in revenue	**539,029**	213,375

Notes to financial statements

December 31, 2016

4. Capital assets

Capital assets consist of the following:

	2016		
	Cost	**Accumulated amortization**	**Net book value**
	$	$	$
Computer equipment	**13,072**	**11,317**	**1,755**
Office equipment	**26,877**	**17,342**	**9,535**
Leaseholds improvements	**6,870**	**3,460**	**3,410**
	46,819	**32,119**	**14,700**

	2015		
	Cost	**Accumulated amortization**	**Net book value**
	$	$	$
Computer equipment	15,721	12,820	2,901
Office equipment	24,553	12,177	12,376
Leaseholds improvements	5,215	2,086	3,129
	45,489	27,083	18,406

5. Federal government funding

The Foundation received a $20,000,000 grant from the federal government in 2008 for the purpose of supporting and enhancing the Gairdner International Awards Program. This grant is to be invested for the duration of the funding agreement and only the income, which includes interest, dividends and realized gains/losses, may be used to support the Foundation's activities until the funding agreement terminates. The Foundation can draw upon the capital to a maximum of $2,000,000 over the term of the funding agreement, provided it uses best efforts to restore any capital withdrawn.

The funding agreement terminates on March 31, 2028, unless terminated earlier, or renewed in accordance with the funding agreement. Upon termination, the Foundation may use the unspent balance of the original grant as it deems appropriate.

The changes in the Government of Canada funding balance are as follows:

	2016 $	2015 $
Balance, beginning of year	**22,257,194**	22,345,551
Interest and dividends	**368,779**	507,344
Realized gain on investments	**1,108,143**	524,976
Net change in unrealized gain (loss) on investments	**494,613**	(216,825)
Investment income for the year *[note 3]*	**1,971,535**	815,495
Amount recognized as revenue	**(895,912)**	(903,852)
Balance, end of year	**23,332,817**	22,257,194

As at December 31, 2016, the amount available for spending in future years is $1,633,582 [2015 – $1,052,572].

6. Alberta government funding

The Foundation received $2,000,000 from the Alberta government in 2008 for the purpose of expanding the Gairdner Outreach Program in Alberta. The funds received from the Alberta government are to be invested during the term of the funding agreement, and only the income, which includes interest, dividends and realized gains/losses, may be used to support the Alberta Gairdner Outreach Program. The Foundation can draw upon the capital to a maximum of $250,000 over the term of the funding agreement, provided it uses best efforts to restore any capital withdrawn.

The grant has an indeterminate term; however, the funding agreement is to be reviewed at least every five years. The Alberta government has the right to terminate the agreement, without cause, upon giving 90 days' notice. Upon termination, the remaining balance of the fund not previously committed for outreach activities must be repaid.

The changes in the Government of Alberta funding balance are as follows:

	2016 $	2015 $
Balance, beginning of year	**2,318,535**	2,377,425
Interest and dividends	**38,416**	53,978
Realized gain on investments	**115,435**	55,854
Net change in unrealized gain (loss) on investments	**51,524**	(23,068)
Investment income for the year *[note 3]*	**205,375**	86,764
Amount recognized as revenue	**(130,758)**	(145,654)
Balance, end of year	**2,393,152**	2,318,535

As at December 31, 2016, the amount available for spending in future years is $215,968 [2015 – $192,875].

Notes to financial statements

December 31, 2016

7. Internally restricted net assets

Internally restricted net assets are funds set aside by the Board of Directors to invest in order to earn income to help fund future operating expenses. In 2016, the Board of Directors approved an interfund transfer from unrestricted to internally restricted net assets of $677,810 [2015 – $238,517]. The Board of Directors may approve a transfer from internally restricted net assets, if required, to fund unanticipated deficits from fundraising shortfalls or unanticipated expenditures.

8. Commitments

The Foundation is required to make future minimum annual lease payments for its premises as follows:

	$
2017	75,000
2018	75,000
2019	37,500
	187,500

9. Financial instruments

The Foundation is exposed to various financial risks through transactions in financial instruments.

Currency risk

The Foundation is exposed to foreign currency risk with respect to its investments denominated in foreign currencies, because the fair value and future cash flows will fluctuate due to the changes in the relative value of foreign currencies against the Canadian dollar.

Interest rate risk

The Foundation is exposed to interest rate risk with respect to its investments in fixed income investments and pooled funds that hold fixed income securities because the fair value will fluctuate due to changes in market interest rates.

Other price risk

The Foundation is exposed to other price risk through changes in market prices [other than changes arising from interest rate or currency risks] in connection with its investments in equity securities and pooled funds.